NOVEMBER/DECEMBER 2023

CEBT54A — BIOFERTILIZER TECHNOLOGY

Time : Three hours Maximum : 75 marks

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SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are Biofertilizer?
2. What is synthetic fertilizer made of?
3. Which media is used for isolation of Rhizobium?
4. Which are phosphate solubilizing bacteria?
5. How do you identify cyanobacteria?
6. Define gram staining.
7. How is large scale production of biofertilizers done?
8. How do biofertilizers improve crop yield?
9. What is Azolla used for?
10. Explain the distribution of Azolla.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Identify the advantages and disadvantages of using chemical fertilizer over Biofertilizer.

Or

(b) Examine the importance of inorganic fertilizer and its applications.

12. (a) Write the protocol for isolating rhizobium.

Or

(b) Explain the methods for culturing cyanobacteria.

13. (a) Identify the steps for enumeration of Azotobacter.

Or

(b) Examine the process of enumeration of phosphobacteria.

14. (a) Explain briefly about production of azospirillum inoculant.

Or

(b) Comment on crop response to various biofertilizers.

15. (a) List out the biochemical characteristics of azolla.

Or

(b) Elaborate on cyanobacterial symbionts.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss about the importance of bio-fertilizers with its advantages and constraints.

17. Elaborate the technique of isolation culturing methods of phosphate Solubilisers.

18. Classify various staining methods to detect bacteria.

19. Explain the procedure involved in large scale production of blue green algae.

20. Describe about morphological and biochemical characteristics of azolla with a note on field applications.

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